



ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

September 20, 2017

VIA E-MAIL AND REGULAR MAIL

Cessna Aircraft Company
c/o Mr. Gregory Simpson
Director, Site Remediation
40 Westminster Street
Providence, Rhode Island 02903

Re: Semi-Annual Voluntary Remediation Program Progress Report #1, March 15, 2017
Voluntary Remediation Plan, May 24, 2017
Semi-Annual Voluntary Remediation Program Progress Report #2, September 8, 2017
Cessna Aircraft Company
4800 Cargo Drive
Columbus, Muscogee County, Georgia
Tax Parcel: 112 003 002

Dear Mr. Simpson:

The Georgia Environmental Protection Division (EPD) is in receipt of the Semi-Annual Voluntary Remediation Program (VRP) Progress Report #1 dated March 15, 2017, the Voluntary Remediation Plan dated May 4, 2017, and the Semi-Annual VRP Progress Report #2 dated September 8, 2017 submitted for the above referenced property (the Property) pursuant to the Georgia Voluntary Remediation Program Act (the Act). Subsequent to our review of these documents, EPD offers the following comments which should be addressed pursuant to the Act.

1. EPD acknowledges the installation of the SVE system at the site and concurs that the system generates sufficient vacuum beneath the building to mitigate vapor intrusion hazards and reduce VOC mass from the soil beneath the source area with continued monitoring. EPD acknowledges the inclusion of the VISL calculator worksheet to support the indoor air monitoring data from the VIRP and the SVE system sampling data, and that the discharge to atmosphere from the SVE system is exempt from SIP permit requirements and below the applicable Rules for Air Quality Control, as sampled on February 1 and August 15, 2017. EPD concurs that continued soil vapor monitoring should be conducted to assess the effectiveness of the SVE system in remediating soils to RRS and/or mitigating the long-term vapor intrusion risk. In support of these tasks, please provide a tentative schedule of sampling frequency and performance monitoring criteria for the SVE system. In addition, please continue to include the resulting data in the semi-annual VRP progress reports.
2. EPD acknowledges that there may be discharge of TCE-impacted groundwater to the Bull Creek tributary located on the Kemira property based on groundwater flow direction and projected plume migration past the delineation limits (Kemira property boundary). EPD recommends continuing

attempts with Kemira to gain access to their property for delineation purposes and to collect stream samples in order to assess potential impacts to surface water. If continued attempts are unsuccessful, please contact EPD for discussion of potential future options regarding the offsite delineation requirements.

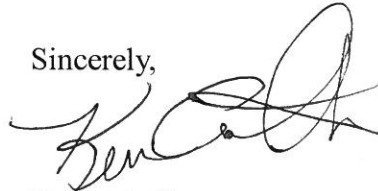
3. EPD concurs with the applicable RRSs determined in the report and acknowledges the proposed use of an environmental covenant as part of the corrective action objectives.
4. EPD concurs, given the site access and logistical limitations, that a barrier technology may be a feasible groundwater remediation approach. However, at this time EPD does not recommend implementing the injections without access to the downgradient groundwater to surface water point of exposure (the creek), particularly regarding the risk of injectant daylighting and/or potential adverse effects to the creek. Please take these comments into account when designing the remediation actions for the site, and include details on what corrective measures will potentially be taken for surfacing of injection solution.
5. Section 5.4.1 of the remediation plan states that injection wells will be installed to bedrock refusal, estimated at 35 feet below ground surface (bgs), with screened intervals from 15-35 feet. Based on the proposed injection well locations and the provided geologic cross-sections, the proposed depths and screened intervals will leave some of the well screen exposed above the water table. This may lead to preferential flow of the injected fluids into the unsaturated soils rather than deeper into the saturated zone where they are needed to contact the COC plume. Additionally, based on the borings from MW-3C, MW-A/B, and MW-7A/B, the bedrock surface appears to be deeper below the land surface to the south of the source area. For the down-gradient row of injection wells, please clarify if the wells will be installed to the bedrock surface or to a predetermined depth of 35 ft bgs.
6. Section 5.2 of the report states that formation samples will be collected during injection well drilling and groundwater samples will be collected from monitoring well MW-3A and two new injection wells to determine dosing requirements for pH control. EPD recommends that groundwater samples be collected from the outermost injection wells and analyzed for VOCs to confirm that the width of the TCE RRS exceedance plume is contained within the injection barrier. EPD recommends that monitoring well MW-4A/B be added to the performance monitoring points proposed in section 5.6 to assess chemical parameters of the groundwater near the eastern edge of the injection barrier.
7. Section 5.4.3 describes the process of establishing reducing conditions in the injection area, and section 5.6 describes the parameters to be analyzed in subsequent performance monitoring events. EPD concurs with the parameters to be collected during quarterly sampling events to confirm that reducing conditions are maintained for adequate bioremediation. Please note that altering the oxidation/reduction conditions at the site has the potential to dissolve and mobilized metals that were previously immobile in stable mineral species or adsorbed to clay mineral particles. These metals have the potential to mobilize from soil to groundwater, where they may exceed applicable groundwater RRSs. EPD acknowledges that soil samples analyzed for metals in 2010 and 2014 were either below applicable RRSs or below laboratory reporting limits. Please provide groundwater RRS calculations for manganese and all RCRA metals detected at the site, as well as

a contingency plan for the potential RRS exceedance of metals in groundwater. A minimum of one round of pre- and post-injection monitoring is recommended for the applicable metals. In addition, please add specific conductance and pH to the quarterly performance monitoring criteria.

8. MW-7A/B (screened below the water table at the saprolite/sediment interface) is currently the furthest down-gradient monitoring well, but higher TCE concentrations were reported in the groundwater sample from temporary well SB-36 just below water table in the same area. Section 2.3 of the report states that higher TCE concentrations likely exist in the upper sediment unit (Unit A) near MW-7A/B, but there is no permanent monitoring well screened at the water table at the down-gradient extent of the plume. Because access agreements have prevented further plume delineation and surface water sampling, water table TCE concentrations are essential to assess the impact or potential impact from groundwater discharge to the stream down-gradient from the site. In order to demonstrate compliance with the cleanup standards of the VRP, it may become necessary to install an additional monitoring well screened at the water table at the down-gradient extent of the plume in the event that no surface water samples can be collected.

EPD anticipates receipt of the third semi-annual progress on March 27, 2018 per the schedule provided. If you have any questions regarding this matter, please contact David DuBose of the Response and Remediation Program at (404) 657-8686.

Sincerely,



Kevin Collins
Unit Coordinator
Response and Remediation Program

C: Philip Hendershot – CDM Smith

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